

**Notice of Allowability**

Application No.

09/886,649

Applicant(s)

BROWN, DAVID A.

Examiner

Paul A Baker

Art Unit

2188

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to ammendment filed 16 June 2004.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☒ The drawings filed on 01 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

**DETAILED ACTION**

***Allowable Subject Matter***

Claims 1-23 are allowed.

The following is an examiner's statement of reasons for allowance:

In regards to independent claims 1 and 4, none of the prior art of record discloses the storage of non-binary width data structure where the logical address identifying a single logical row in the memory for storing one non-binary width data structure in combination with the other specified claim limitations. In light of the record, the examiner interprets "non-binary width data structure" to mean a data element whose degree of precision requires a number of bits which is not equal to a power of 2 ( $2^n$ ), additionally examiner interprets "the logical address identifying a single row in the memory" to mean that there is a one to one remapping (for each address given to the memory, the mapper logic provides a unique address (ie 2 different logical addresses cannot produce the same physical address)) and sub-portions of the data structure are not directly addressable, AKA atomic addressing (ie a 17 bit data structure cannot be addressed by its 1<sup>st</sup> or 2<sup>nd</sup> 8 bit portions or its single bit portion). Lehman et al., US Patent 5,680,161, discloses a method of storing non-binary width data structures in memory (24-bit pixel data stored in 32 bit memory wherein the extra 8 bits of data are used to store the first subpixel of the next pixel, ie if data is stored in RGB format, the R data for the next pixel is stored in the extra 8 bits), however Lehman requires the addressing of 2 32 bit data to reconstruct a pixel which wraps around two sequential memory addresses (in previous example, accessing the second pixel would require

accessing two adjacent memory locations, the first location to get the R subpixel data and the second location to get the G and B subpixel data). Since applicant's claim limitations specify that each non-binary width data structure is atomic, whereas Lehman is non-atomic, applicant's claims 1 and 4 are found allowable over the prior art of record.

Claims 2,3,5 and 6 are allowable as dependent upon allowed claims 1 and 4.


The reasons for allowance of claims 7-23 were provided in the prior office action.

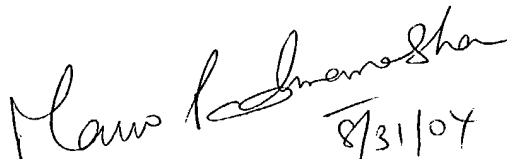
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A Baker whose telephone number is (703)305-3304. The examiner can normally be reached on M-F 10am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (703)306-2903. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
PB

  
8/31/04

**MANO PADMANABHAN**  
**SUPERVISORY PATENT EXAMINER**